

**STATE OF CALIFORNIA
FISH AND GAME COMMISSION
FINAL STATEMENT OF REASONS FOR REGULATORY ACTION**

Amend Section 120.3
Title 14, California Code of Regulations
Re: Spot Prawn Trawling

- I. Date of Initial Statement of Reasons: August 26, 2002
- II. Date of Pre-adoption Statement of Reasons: November 7, 2002
- III. Date of Final Statement of Reasons: January 6, 2003
- IV. Dates and Locations of Scheduled Hearings:
 - (a) Notice Hearing: Date: August 2, 2002
Location: San Luis Obispo, CA
 - (b) Discussion Hearing: Date: December 6, 2002
Location: Monterey, CA
 - (c) Adoption Hearing: Date: December 20, 2002
Location: Sacramento, CA

- ## V. Update:

No modifications were made to the originally proposed language of the Initial Statement of Reasons.

The Commission only adopted management option (7), a seasonal closure, at its December 20, 2002 meeting. The other seven options were not adopted.

- VI. Summary of Primary Considerations Raised in Support of or Opposition to the Proposed Actions and Reasons for Rejecting those considerations:

Responses to public comments received through October 20, 2002 were included in the Pre-adoption Statement of Reasons (see attached).

The Commission received 1,388 virtually identical electronic mail form letters supporting a permanent closure of the spot prawn trawl fishery and a conversion of some trawl permits to trap permits through the use of an experimental gear permit. (See Attached Form Letters, version 1).

The Commission received 583 virtually identical electronic mail form letters (over 400 of which were printed and delivered to the Director of the Department of Fish

and Game) different from the first, but also supporting a permanent closure of the spot prawn fishery and a conversion of some trawl permits to trap permits through the use of an experimental gear permit. (See Attached Form Letters, version 2).

See the Department's response to Tom Mattusch's letter, dated October 16, 2002 in the attached Pre-adoption Statement of Reasons.

Mr. Tom Hafer, Owner/Operator of the F/V Kathryn H, spot prawn trapper, letter dated October 30, 2002

This letter is almost identical to the one received on October 20, 2002. See the Department's response to Mr. Hafer's first letter in the attached Pre-adoption Statement of Reasons.

Mr. Henry Lovejoy, President of EcoFish in Portsmouth, NH, letter dated October 16, 2002

Mr. Lovejoy's business markets seafood only from environmentally sustainable fisheries. Currently he markets spot prawn from Alaska's trap fishery. He supports phasing out trawling and believes he would be able to market California's trap-caught prawns if trawling were eliminated.

Department's Response: The Department's proposal includes Option (3), a prohibition on the use of trawl nets to take spot prawn.

Mr. Ilson New, attorney for active spot prawn trawl permittees, letter dated December 19, 2002 accompanied by testimony on 12/20/02

In his testimony, Mr. New summarized and highlighted the nine points contained in his letter in opposition to the closure of the spot prawn trawl fishery.

- (1) The Department is basing its recommendation on the results of its bycatch observer program report.
- (2) The Department's bycatch observer program report contains erroneous information and the sampling methodology is fatally flawed.
- (3) The Department's bycatch observer program report is fatally flawed in that it uses an invalid assessment of uncertainty.
- (4) Dr. Alice Rich concluded that the Department's bycatch observer program report is fatally flawed.
- (5) The Department failed to obtain data on different types of finfish excluders and therefore considered the use of a hard grate excluder not to be a viable option.
- (6) The Department's bycatch observer program report is not the "best available science" as required in Fish and Game Code Section 7710.
- (7) Mr. New cites CDFG rockfish landing totals from all three prawn fisheries in 2001 that declined from 2000 and are less than the estimates presented

in the bycatch observer program report as proof of the inaccuracy of the report.

- (8) The Department's bycatch observer program report did not undergo peer review, an accepted practice in the scientific community.
- (9) The spot prawn trawl industry is offering to provide all boats, gear, equipment, fuel, and personnel for a properly designed and administered spot prawn trawl bycatch survey.

General Response: There is necessarily a degree of unquantifiable uncertainty inherent in the discussion of bycatch rates. Because bycatch rates are conditioned upon the size, abundance, and species composition in the fishing grounds at the time that targeted fishing is occurring, bycatch studies will only give general estimations as to future bycatches. Thus, even if we knew the bycatch with complete accuracy for last year, it would only give us an approximation of the potential bycatch for future years, because changes in size, abundance, and species composition, as well as differences in the distribution of targeted fishing effort, will result in changes in bycatch and bycatch rates.

Further, it is highly unlikely that any bycatch survey can be conducted in a completely random and unbiased manner. The very fact that there is an observer onboard who belongs to or reports to a regulatory agency (Department of Fish and Game, National Oceanic and Atmospheric Administration, etc.) may affect the fishing methods of the skipper and crew.

Trawl nets were designed to catch bottom fish. The use of trawls to catch spot prawns in California is a more recent development. Thus, it is not surprising that these nets are catching fish as well as spot prawns.

Observer effort in the Department's study was low, but a similar amount of effort was expended on both the trap fishery and the trawl fishery. The difference in bycatch between the two fisheries is real. The absolute numbers have large bounds about them, but the magnitude of the difference between bycatch in the two gear types is reasonable.

In light of these factors, information from the bycatch observer program is the best available data.

Comments to Specific Items:

1. Comment: The Department is basing its recommendation on the results of its bycatch observer program report. Response: The Department's observer program is not the only evidence relied upon. However, the bycatch rates in the program were comparable to bycatch rates in other trawl studies that were included or referenced in the report.

2. Comment: The Department's observer report contains erroneous information, and the sampling methodology is fatally flawed. Response: It is not possible to obtain completely random, unbiased samples from an observer program. An observer on board will result in a biased sample. The Department clearly stated in the report that "Thus the samples were not random,...". (See attached Spot Prawn Observer Report, page 3.)
3. Comment: The Department's observer report is fatally flawed in that it uses an invalid assessment of uncertainty. Response: Weights of small fish were based upon weight-length relationships, while aggregate weights of a group of fish of the same species or of a single large fish were based on the use of a hanging scale. These methodologies have been used and are still used in fishery population modeling and field surveys. This technique of assigning weights to small fish based on length is used because it is difficult to accurately weigh small fish on a moving boat at sea. Most weight-length data in the literature is given without error bounds. This could arguably be a theoretical flaw, but considering all aspects of this survey, this is of minor concern. Significantly, the same methods were used for the trawl and the trap fisheries, so if weights were biased, they would be biased for both fisheries and in the same direction and differences in the magnitude of the bycatch rates between the two fisheries would not change. Therefore, for resource management decisionmaking purposes, the results provide legitimate guidance.
4. Comment: Dr. Alice Rich concluded that the Department's observer report is fatally flawed. Response: Dr. Rich's primary criticism of the survey was that it was not random. Bycatch even in a completely random survey is dependent on the abundance, relative species composition, and size and age of the fish present in the area at the time of each sample. These factors change with time. Good recruitment for a species will increase its numbers in the bycatch. Movement of the bycatch species in response to changing environmental conditions will alter their abundance in the prawn trawling areas.
5. Comment: The Department failed to obtain data on different types of finfish excluders and therefore considered the use of a hard grate excluder not to be a viable option. Response: The Department was authorized by the Commission to conduct an at-sea observer program of bycatch in the spot prawn fishery. The Commission did not request the Department to do a study on the different types of finfish excluders. The Department's original consideration of the viability of finfish excluders occurred long before the collapse of the rockfish fishery and the attendant urgency for addressing bycatch of such rockfish species as bocaccio.

6. Comment: The Department's bycatch observer report is not the "best available science" as required in Fish and Game Code Section 7710. Response: Section 7710 requires only the use of best available information "or other relevant information." More importantly, Section 7710 refers to the Director's authority to temporarily close a fishery due to non-sustainability of the fishery. This action is not being taken by the Director, nor is it being taken out of sustainability concerns over the spot prawn fishery. This action is undertaken pursuant to Fish and Game Code Section 8591, which authorizes the Commission to regulate the taking of prawns and shrimp. This action is being taken because the federal rebuilding plan for bocaccio mandates that the bocaccio catch from all sources immediately be reduced to be as close to zero as possible. The expected unintentional catch for 2003, which presumes no bycatch in the spot prawn trawl fishery, is estimated to be 11 metric tons; this level of take will keep the bocaccio stock from decreasing, but will not contribute to rebuilding. This reflects the best available science.
7. Comment: Mr. New cites CDFG rockfish landing totals from all three prawn fisheries in 2001 that declined from 2000 and are less than the estimates presented in the bycatch observer report as proof of the inaccuracy of the report. Response: Commercial rockfish landing data from the three prawn fisheries do not reflect what was caught in these prawn fisheries. Many of the rockfish captured were too small to be marketed. Markets do not exist for many of the smaller rockfish species, or for fish that have been seriously damaged. For the past several years there have been trip limits that severely limit the poundage of groundfish that can be landed. In the last half of 2002, no groundfish species were even allowed to be retained by trawl vessels.
8. Comment: The Department's bycatch observer report did not undergo peer review, an accepted practice in the scientific community. Response: Peer review is a contemplated component of fisheries management plan development under the Marine Life Management Act (MLMA). However, this action is not undertaken as part of a MLMA management plan. This action is undertaken by the Commission under the separate authority of Fish and Game Code Section 8591, and there is no legal requirement that such studies be peer-reviewed. Nonetheless, it was the best data the Department was able to obtain from the fleet of trawl vessels. The estimated total bycatch of the various species was presented with the indication that there were large variances around the non-random samples that were obtained. It was impossible to count and identify every fish in every observed tow without completely disrupting a fishing vessel's operation, which in turn would bias the results.

9. Comment: The spot prawn trawl industry is offering to provide all boats, gear, equipment, fuel, and personnel for a properly designed and administered spot prawn trawl bycatch survey. Response: The spot prawn trawl industry's offer to provide all boats, gear, equipment, fuel and personnel for a new bycatch study does not address a number of issues. Primarily, a bycatch study does not eliminate the incidental take of fish and invertebrate species in general or of bocaccio in particular. The proposal also fails to explain how State regulation of the fishery can be consistent with the federal bocaccio rebuilding plan (mandating that the bocaccio catch be reduced to as close to zero as possible), while this study is carried out. Mr. New acknowledged that there are probably 20-22 active spot prawn trawl vessels. The Department did not consider an industry-funded observer program a viable alternative since it would not reduce the level of bycatch.

Sandy Winston, commercial trawl fisherman, testimony on 12/20/02

Mr. Winston submitted video tapes of the Commission's August 2 and August 30, 2002 meetings and commented that it appeared to be a done deal to shut down the spot prawn trawl fishery. He pointed out that he had already lost the best 42 days of the spot prawn trawl season because of the emergency moratorium on spot prawn trawling. He also stated that the recreational fishing industry is against commercial fishing, in particular trawl fishing. He feels that the Commission should wait until bocaccio surveys are done in southern California before action is taken against his fishery. He also suggested requiring the use of small foot rope gear.

Department Response: The incidental catch of bocaccio being allowed in California in 2003 is so small that postponing action until surveys of bocaccio are done by the federal government is not a viable option. A requirement for the use of small roller gear (option 6a) is included in the proposed package.

Gordon Fox, commercial pink shrimp and spot prawn trawl fisherman, testimony on 12/20/02

Mr. Fox displayed a hard grate fish excluder and explained to the Commissioners how it worked. He commented on how the spot prawn trawl fishery is being punished for the Department's lack of data on bycatch. He requested that the hard grate excluder be mandatory in the spot prawn trawl fishery. He said it would work well in the ridgeback and pink shrimp fisheries too. He stated that Oregon will be using this type of excluder in the pink shrimp fishery in the near future. He also pointed out that the size and scale of the fishery in Oregon and Washington is much smaller.

Department Response: The requirement for a hard grate excluder is one of the proposed regulatory options (6b). The use of the hard grate excluder is only documented in the pink shrimp fishery, where the target species is considerably smaller than the spot prawn, and it is not known whether this device would be

effective at eliminating bycatch of bocaccio in the spot prawn fishery.

Kate Wing, Natural Resources Defense Council, testimony on 12/20/02

Her organization supports the conversion of the spot prawn trawl fishery to a trap only fishery. She highlighted the importance of not catching any bocaccio.

Department's Response: The Department's proposal includes Option (4), a prohibition on trawl gear and a conversion to traps. The federal rebuilding plan for bocaccio requires no bocaccio to be harvested if rebuilding is going to take place.

Doug Obegi, Ocean Conservancy, testimony on 12/20/02

Mr. Obegi believes that there is substantial data to support the phase-out of spot prawn trawling. He also made the point that it is currently the best available data. He commented that discards at sea are a major problem in this fishery and that trawl nets do impact the rocky reefs which play a significant role in rockfish recovery.

Department Response: The Department's proposal includes Option (4), a prohibition on trawl gear and a conversion to traps. The Department believes that its bycatch report does provide the best available data on bycatch in the spot prawn fishery and that a problem exists because of the bocaccio bycatch. The Department does not have data to quantify the effects of trawl gear on rocky areas.

Barry Broad, United Anglers of Southern California, testimony on 12/20/02

Mr. Broad's organization supports the phase-out of spot prawn trawling and the conversion to traps. The Department's bycatch report provides ample evidence to support such an action.

Department's Response: The Department's proposal includes Option (4), a prohibition on trawl gear and a conversion to traps. The Department believes that its bycatch report does provide enough data on bycatch of overfished species in the spot prawn trawl fishery to support phase-out of spot prawn trawling.

Karen Reyna, Ocean Conservancy, testimony on 12/20/02

Karen Reyna provided details on Oregon's conversion of its spot prawn trawl fishery to a trap-only fishery by 2004. The spot prawn trawl fishery has been eliminated in British Columbia, Alaska, and Washington. Her organization supports the conversion of trawls to traps for the same reasons that the Commission supported in approving a trap only fishery for coonstripe shrimp. She commented that the Marine Life Management Act (MLMA) clearly states that

sustainability is the primary fishery management goal.

Department's Response: The Department's proposal includes Option (4), a prohibition on trawl gear and a conversion to traps. The Department is in agreement with the other information presented.

Tim Eichenberg, Oceana, testimony on 12/20/02

His organization previously provided letters to the Commission supporting a trawl prohibition and conversion. Trawl nets destroy habitat on hard bottoms.

Department's Response: The Department's proposal includes Option (4), a prohibition on trawl gear and a conversion to traps. The Department does not have data to quantify the effects of trawl gear on rocky areas.

Randy Fry, Recreational Fishing Alliance, testimony on 12/20/02

Mr. Fry pointed out that in 2003 there is no bocaccio allocation, just a minimum harvest level that allows for some state fisheries to operate. The state has committed to keeping the incidental catch of bocaccio from all sources to 11 metric tons in 2003. That level does not allow for any rebuilding of the bocaccio stock. For that to occur, the bocaccio catch needs to be zero. The spot prawn trawl fishery should be phased out with a conversion to traps allowed so that some rebuilding of the bocaccio stocks can take place, and the maintenance of status quo is not jeopardized.

Bob Strickland, United Anglers of California, testimony on 12/20/02

Since zero bocaccio bycatch from the spot prawn trawl fishery can not be guaranteed, the bycatch could affect the recreational fishermen's access to fishing when their season opens later in the year. Consequently, his organization supports phasing out the spot prawn trawl fishery with a conversion to traps.

Department's Response to Fry and Strickland: The Department's proposal includes Option (4), a prohibition on trawl gear and a conversion to traps.

Joe Blum, National Marine Fisheries Service (NMFS), SW Region, testimony on 12/20/02

Mr. Blum wanted to make two points with the Commission before it made its decision on the proposed package. (1) NMFS recommended against the listing of bocaccio as an endangered species based on the State's proactive efforts to attain a zero bycatch in the spot prawn trawl fishery. (2) The Pacific Fishery Management Council based its decision to allow up to 11 metric tons of incidental bocaccio harvest based on an understanding that there would be no bycatch contribution from the spot prawn trawl fishery. If bycatch continues in the spot prawn trawl fishery, the PFMC may decide to revisit California's incidental harvest limit.

Department's Response: The PFMC has authority over the take of all groundfish species off the coast of California. Although the spot prawn fishery is a state-managed fishery, the bycatch problem directly concerns federally-managed species. Inaction by the State to address this problem could result in either a listing of bocaccio under the Endangered Species Act and/or preemption of the state fishery under the Magnuson Fisheries Management Act. Either way, the spot prawn trawl fishery would be adversely affected. Additionally, the NMFS recently published in the Federal Register an emergency regulatory amendment to prohibit the take, as well as the retention, of groundfish with any type of trawl gear.

VII. Location and Index of Rulemaking File:

A rulemaking file with attached file index is maintained at:
California Fish and Game Commission
1416 Ninth Street
Sacramento, California 95814

VIII. Location of Department files:

Department of Fish and Game
1416 Ninth Street
Sacramento, California 95814

IX. Description of Reasonable Alternatives to Regulatory Action:

(a) Alternatives to Regulatory Action:

The proposed regulations are presented as a series of options which include alternatives.

(b) No change Alternative:

If the spot prawn trawl fishery is allowed to continue without change, an unacceptable amount of depleted groundfish will be taken. In the Department's observation program these groundfish species included bocaccio, cowcod, darkblotched rockfish and hake. For bocaccio, the estimated annual bycatch of 4.6 metric tons could exceed the total OY for California in 2003. Bocaccio is currently a candidate species for federal listing under the Endangered Species Act. Allowing this fishery to continue without change would undermine the federal rebuilding plans for a number of overfished species.

(c) Consideration of Alternatives: In view of information currently possessed, no reasonable alternative considered would be more effective in carrying out the purposes for which the regulation is proposed or would be as effective and less burdensome to the affected private persons than the proposed regulation

X. Impact of Regulatory Action:

The potential for significant statewide adverse economic impacts that might result from the proposed regulatory action has been assessed, and the following determinations relative to the required statutory categories have been made:

(a) Significant Statewide Adverse Economic Impact Directly Affecting Businesses, Including the Ability of California Businesses to Compete with Businesses in Other States:

Each spot prawn trawler or buyer is considered a business. Spot prawn is landed either live or dead, but the live product demands a much greater price and is the preferred method of landing. In 2000 and 2001, 39 and 43 trawl vessels, respectively, landed spot prawn in California. Of those vessels, 22 and 21, respectively, landed more than 1,000 pounds of spot prawn at an average price of \$7.00/ pound (live). The estimated ex-vessel value of the spot prawn trawl fishery was \$1.4 million in 2001. The estimated loss to the fishery participants from a September-October closure alone would be \$0.4 million based on the ex-vessel value of spot prawn and seasonal trends in catch and effort. In addition to losses incurred by fishermen due to their inability to provide their product, California buyers, processors and consumers will suffer additional losses which are not easily quantified.

In recent years, a number of these vessels have also participated in trawl fisheries for pink shrimp, California halibut, ridgeback prawn, and sea cucumber (the other state-managed trawl fisheries). Although pink shrimp and sea cucumber are restricted access fisheries, the other two are open

access. It is anticipated that a number of the affected spot prawn vessels would resume participation or participate more actively in these other fisheries if a prohibition on trawling went into effect. Increased participation in the other state-managed trawl fisheries would likely have a negative impact of unknown degree on the halibut and ridgeback trawl fisheries, and to a lesser degree pink shrimp and sea cucumbers. These fisheries are already fully exploited and additional effort will cause decreased success in the remaining trawl fisheries.

A vessel is a significant liability to the owner when it is not being used to fish. There are always berthing and maintenance fees. There is no resale value on a trawl vessel that can no longer be used to fish. Therefore cashing out is not an option for a fisherman with a trawl vessel and no permit guaranteeing a place in an existing fishery.

Conversion of trawl vessels to trap vessels would have a negative effect on the existing trap fishery participants and would also result in reduced income to the fishermen converting to a new gear type. The initial investment for each trap and associated rigging could run \$35 to \$75 per trap.

As opposed to a complete prohibition on spot prawn trawl activity, a depth closure would allow the larger trawl vessels (approximately 50 feet in length or greater), the ones that usually make the largest landings, to continue to operate, although on a limited basis. Results from the bycatch observer study showed that approximately 90 percent of all observed trawl tows occurred in water less than 150 fm deep. Small trawl vessels can not operate beyond the depth closure because of size, power and stability limitations.

A moratorium on new permits, or cooperation with a federal observer program are not expected to have negative impacts on business. However, a contract observer program would be costly for such a small fleet of vessels. Contract observers can easily cost from \$300 to \$500 a day. A large portion of the fleet would not be able to operate with the additional cost of such an observer program.

The gear restrictions being proposed might result in a reduced take of spot prawn. However, fish bycatch in the net is detrimental to the prawns, so there could also be a positive effect that offsets any shrimp loss. There would be an initial investment to convert to a small footrope and or install a hard grate excluder that would be difficult to quantify, although it is not expected to be prohibitive.

A six month closed season would have a detrimental effect on trawl participants. The amount of income each trawl fisherman would lose during an additional three month closure is not quantifiable, but could

make the fishery unviable economically for a number of participants, especially those with smaller vessels.

A vessel monitoring system, depending on the model selected, would range in cost between \$1700 and \$2700. This would be a one time cost that would be amortized over time.

- (b) Impact on the Creation or Elimination of Jobs Within the State, the Creation of New Businesses or the Elimination of Existing Businesses, or the Expansion of Businesses in California:

See discussion under X(a) above

- (c) Cost Impacts on a Representative Private Person or Business:

The agency is not aware of any cost impacts that a representative private person or business would necessarily incur in reasonable compliance with the proposed action.

- (d) Costs or Savings to State Agencies or Costs/Savings in Federal Funding to the State: None.
- (e) Nondiscretionary Costs/Savings to Local Agencies: None
- (f) Programs mandated on Local Agencies or School Districts: None
- (g) Costs Imposed on Any Local Agency or School District that is Required to be Reimbursed Under Part 7 (commencing with Section 17500) of Division 4: None
- (h) Effect on Housing Costs: None

Updated Informative Digest /Policy Statement Overview

The spot prawn trawl fishery is open-access, and is closed from November 1 through January 31 statewide. The Department's recently released report, *Results of California Department of Fish and Game Spot Prawn Trawl and Trap Fisheries Observer Program 2000-2001*, estimated a total bycatch in the trawl fishery of 5 tons of bocaccio, 1.2 tons of cowcod, and 6.5 tons of darkblotched rockfish in a one-year period. This level of bycatch of these overfished rockfish species is considered unacceptable, and the Commission has taken emergency action to prohibit trawling for spot prawn in California for the rest of 2002 fishing season.

The Department is proposing the following regulatory options to be considered individually or in combination for implementation by February 1, 2003, the reopening of the spot prawn trawl season:

- a moratorium on the issuance of new spot, ridgeback, and golden prawn trawl permits (these species are combined under a single permit);
- a requirement that all spot prawn trawl vessels cooperate with the federal groundfish observer program or require their participation in a contract observer program;
- a prohibition on the use of trawl nets to take spot prawn;
- a prohibition on the use of trawl nets to take spot prawn with the allowance of a conversion to trap fishing, subject to certain minimum landing requirements from the trawl fishery during the 1997 to 1999 window period;
- the establishment of a minimum depth restriction for spot prawn trawling south and north of Point Reyes at 150 fathoms and 250 fathoms, respectively;
- a requirement that all spot prawn trawl vessels use small roller gear (8-inch diameter or smaller) and/or hard grate excluders in their nets;
- the establishment of a six-month closed season for spot prawn trawling that runs from September 1 through the end of February; and
- a requirement that all spot prawn trawl vessels be equipped with a vessel monitoring system when the federal government has an operational monitoring program.

The Commission, at a special meeting held on December 20, 2002, only approved the proposed regulatory option which establishes a six-month closed season for spot prawn trawling that runs from September 1 through the end of February.

REGULATORY LANGUAGE

Subsection (e) of Section 120.3 Title 14, CCR is amended to read:

(e) Restricted Catch Period:

(1) Trawling for spot prawns in all zones shall be subject to the incidental catch restrictions pursuant to subsection (h) from ~~November~~ September 1 through ~~January 31~~ February 28.

(2) Trawling for ridgeback prawns in all zones shall be subject to the incidental catch restrictions pursuant to subsection (h) from June 1 through September 30.

Note: Authority cited: Sections 710.7, 711, 8591 and 8842, Fish and Game Code.

Reference: Sections 710.7, 711, 8140 and 8842, Fish and Game Code.